

Describe how your background, accomplishments, and life experiences led to your decision to pursue the graduate degree for which you are applying. Include any educational, personal, cultural, economic, or social experiences, challenges or opportunities relevant to your academic journey. *In addition*, please describe any aspects of your personal background, accomplishments, or achievements that will allow the department to evaluate your contributions to the University's diversity mission. Contributions to diversity and equal opportunity can take a variety of forms, such as efforts to advance equitable access to education, public service, that addresses the need of a diverse population, or research that explores inequalities.

College is about finding your passion, but at the beginning I had no idea whether I wanted it to be in finance or computer engineering. These are two fields that fascinated me on a large scale. I was impressed by the finance world. I wondered how people were able to manage such a great amount of money and how the market, mortgage rates, and the economy were connected and correlated; I was also intrigued by computer programming. I marveled how technologies were implemented by writing codes and how humans could make powerful computers using minuscule transistors.

After doing research on financial engineering when I was a freshman, I found out that every course in the curriculum interested me, such as Econometrics, Stochastic Calculous, and Quantitative Asset Managements. In order to purse a career in financial engineering, I learned that it was crucial for me to have a solid foundation both in mathematics and in computer programming. Hence, I did not hesitate to switch my major to computer engineering, despite the objections from my friends and family who discouraged me from picking this major due to the difficulties and challenges I would encounter. This major would quantitatively prepare me to become a financial engineer.

Regardless of the challenging and stressful curriculum of computer engineering, I developed the time management skills and was able to balance my school work with the finance world. Starting freshmen year, I read the Wall Street Journal daily, keeping up with the news and the market. Having a goal of becoming a financial engineer, I taught myself finance online by reading concepts such as futures, options and stock terminologies. All my hard work in learning finance paid off when I was admitted to the Morgan Stanley Financial Training program as the only engineering major, surrounded by all finance and economic majors.

At the beginning of the program, I felt inferior due to my lack of professional knowledge. My peers seemed to understand everything Jeffery Won, the vice president of Morgan Stanley, said. As an ambitious person, who became stronger and better when he met the best in the field, I was determined to work my way up to the top of the class. As a result, I paid extra attention during the trainings and searched every term that I did not know in order to advance my learning and catch up with the rest of the class.

Later on, we did a stock simulation project, where each of the trainees started with 500,000 dollars of virtual money and made investments with real indexes. This project was more of a competition than just a project. We had rankings regarding the total returns. We could buy long, sell short and get our hands on options. This project was my debut of investment, whereas most of my peers had prior experiences. It was extremely overwhelming at the beginning; there were so many companies and I did not know which ones to invest in. However, I was a good observer. After a few days of applying the fundamental and technical analysis, comparing various ratios, and researching companies that I was familiar with, I was able to make a decent return on my investment. Nonetheless, I was far from being ranked in the top three. I discovered that news was behind the movements of the stocks and I always missed the spike increase. Very soon, I found out about the earnings season. Subsequently, I started checking the Nasdaq calendar for earnings release day. Before making investment decisions prior to the day when companies released earnings, I did meticulous researches on companies: I wrote my own program to calculate their discounted cash flow, compared different ratios, looked at previous performance of the earnings and the analysts' estimates, and analyzed different charts and indexes including the moving average and relative strength index. To evaluate risks, I would also take into account various aspects of the market, including recent news and public sentiments. It took me a couple hours to research one company but I could do this all day indefatigably. This critical and comprehensive thinking facilitates me to make smart decisions and I jumped to second place in a week by day trading different stocks that were scrupulously selected.

This program opened up a whole new world to me. It changed my way of viewing the world, allowing me to think about problems from different angles and enlarged my original interest of finance. After the program, I had a better understanding of the terminologies that I previously taught myself. Although I learned a lot from this program, I knew what I learned was just the tip of the iceberg. When I was analyzing the companies, I only used a little data to anticipate the trend of the market. With four years of computer programming experience, I was confident that I could predict a more accurate trend of the market by compiling a large set of data using programming skills and modeling techniques. I possess both the programming skills and some finance knowledge, but I need the Master of Financial Engineering (MFE) at UCLA to help me efficiently and effectively merge the two skills together. When Reading the curriculum of the MFE, I did not find the material intimidating. Instead, it excited me. I have either previously learned or read the subjects, such as Fundamentals of Investment and Computational Methods in

Finance. I believe, because of my computer engineering background, I will be able to keep up with the rigorous class work and advance my knowledge.

While graduate school will further my journey towards a successful career, I feel obligated to help younger generations succeed. Growing up in China, I excelled in math but I noticed that people around me were struggling. I knew I could help, so I reached out to the elementary schools around UC Davis to become a volunteer teaching assistant. I ended up becoming a fifth grade math teaching assistant in Patwin elementary school. It was a totally new experience for me. Some students needed special care for psychological problems such as ADD and ADHD. I recalled that there was one student, John, with a very bad temper. I had problems communicating with him at first due to his irascibility. But as I shared more about myself and China, he became interested and opened up to me. By building a friendship between myself and John, I was able to teach him mathematical concepts. He turned out to be a smart kid and had a lot of creative ideas when solving mathematical problems.

There was another student that I positively affected. Her name was Yilei, a transfer student straight from China. She was brilliant and knew how to solve all math problems but she had trouble understanding English. In addition, she was too shy to speak out loud even after arriving the U.S. six months ago. When she met me, knowing that I could speak Chinese, I saw the relieved expression on her face and her shining eyes. It was like she met her family here. Every time I came to volunteer, she started talking to me endlessly. When I learned her story, being far away from her parents and friends in China, I felt sympathetic for her. I told her that life happened the way it was and all she had to adapt to the new environment. It was hard for her to speak to others in the first few weeks after I started volunteering there. But I kept encouraging her and taught her how I learned to speak with Americans when I first came to the U.S. As time went by, I delightedly witnessed the progress she made: from saying “how are you”, to a full conversation with her friends about her day all in English.

After directly changing her life, I believe that going to MFE at UCLA would not only give me the knowledge and skills to launch my career, but also advance the society around me.